REMARKS

Claims 1 - 10 remain in the case. All claims stand rejected. Claim 8 has been amended to remove the misprinted text objected to by the Examiner.

35 USC 103

With respect to claim 1, Clark discloses a process for the hydroconversion of a heavy hydrocarbon feed by using a first relatively small-pore highly active catalyst mixed with a second catalyst having a large macropore volume (Clark, Col 6, lines 7-10).

Clark's first relatively small-pore highly active catalyst is generally limited to having 0.1 ml/g of pore volume in pores having a diameter greater than about 200 Å and less than 0.02 ml/g in pores having a diameter greater than about 800 Å (Clark, Col 7, lines 45-50). This catalyst has no appreciable macropore volume. (Clark, Col 10, lines 15-16.) Clark's first catalyst can be functionally compared to the Applicant's catalyst II in claim 1 of the instant application. In both catalyst systems, this catalyst is meant to provide catalytic activity rather than to permit deposition of metals and asphaltenes.

Clark's second large-macropore catalyst is generally limited to having greater than 0.07 ml/g in pores having a diameter greater than about 800 Å (Clark, Col 7, lines 52-56). Clark's second catalyst can be functionally compared to the Applicant's catalyst I in claim 1 of the instant application. In both catalyst systems, this catalyst is meant to permit deposition of metals and asphaltenes.

The Applicant's catalyst system significantly differs from that disclosed in Clark. The most significant difference is the Applicant's requirement that 10% - 30% of the pore volume of catalyst I lie in pores having a diameter of at least 2000 Å. According to Applicant's written description, if the percentage is too low, the asphaltene removal capacity will decrease. If it is too high, the mechanical strength will decrease. See Applicant's Specification, page 6, lines 25-30. As the Examiner has already pointed out, Clark does not disclose this limitation.

The Examiner argues that it would have been obvious to one having ordinary skill in the art to substitute Clark's second, large-macropore catalyst with the catalyst disclosed in Schindler. However, the Applicant submits that the Examiner has failed to establish a prima facie case of obviousness.

"Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching suggestion or incentive supporting the combination." *See In re* Geiger, 815 F.2d 686, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987). Schindler discloses a catalyst having an improved hydrotreating activity and catalyst life, however, it is not the pore size distribution that effects the performance of the catalyst, but rather that fact the Schindler catalyst is calcined at a temperature between 1150°F and 1300°F. See Schindler, Col 1, lines 36-42. The Applicant's catalyst system is calcined at 600-900°C (1112°F-1652°F). Thus there would be no motivation to use Schindler's invention because Applicant already calcines at temperatures in the range disclosed by Schindler. There is absolutely no suggestion in Schindler that by controlling pore size distribution of a catalyst in heavy hydrocarbon hydroprocessing service one may improve asphaltene removal without sacrificing mechanical strength. In fact, Schindler does not discuss these parameters at all.

Without any motivation to combine Schindler with Clark, Applicant submits that claim 1 is in condition for allowance, as are all claims that depend on claim1. Further, Applicant submits that claim 7, as well as any claim that depends on claim 7, is in condition for allowance for the same reason as outlined above.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. The Examiner is encouraged to contact Applicants' attorney should the Examiner wish to discuss this application further.

Respectfully submitted,

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